ORIGINAL ARTICLES

Should Physicians Have Facial Piercings?

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OBJECTIVE: The objective of this study was to assess attitudes of patrons and medical school faculty about physicians with nontraditional facial piercings. We also examined whether a piercing affected the perceived competency and trustworthiness of physicians.

DESIGN: Survey.

SETTING: Teaching hospital in the southeastern United States.

PARTICIPANTS: Emergency department patrons and medical school faculty physicians.

INTERVENTIONS: First, patrons were shown photographs of models with a nontraditional piercing and asked about the appropriateness for a physician or medical student. In the second phase, patrons blinded to the purpose of the study were shown identical photographs of physician models with or without piercings and asked about competency and trustworthiness. The third phase was an assessment of attitudes of faculty regarding piercings.

MEASUREMENTS AND MAIN RESULTS: Nose and lip piercings were felt to be appropriate for a physician by 24% and 22% of patrons, respectively. Perceived competency and trustworthiness of models with these types of piercings were also negatively affected. An earring in a male was felt to be appropriate by 35% of patrons, but an earring on male models did not negatively affect perceived competency or trustworthiness. Nose and eyebrow piercings were felt to be appropriate by only 7% and 5% of faculty physicians and working with a physician or student with a nose or eyebrow piercing would bother 58% and 59% of faculty, respectively. An ear piercing in a male was felt to be appropriate by 20% of faculty, and 25% stated it would bother them to work with a male physician or student with an ear piercing.

CONCLUSIONS: Many patrons and physicians feel that some types of nontraditional piercings are inappropriate attire for physicians, and some piercings negatively affect perceived competency and trustworthiness. Health care providers should understand that attire may affect a patient's opinion about their abilities and possibly erode confidence in them as a clinician.

KEY WORDS: physician attire; piercing; patient attitude; patient-physician relationship; dress code.
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While physician appearance may not be the most important aspect of the doctor-patient relationship, it does play a role. Studies have shown that patients prefer that their physician wear certain attire such as a name tag and white coat,[1–5] while others have correlated appearance with patients' perceptions of a physician's competence.[6–8] Appropriate physician dress is not a static phenomenon. While the importance of physician appearance has been emphasized since the time of Hippocrates, the style of physician attire has been through dramatic changes. At times physician appearance has been unique to the profession and at other times has reflected societal fashion.[1]

Our present culture is experiencing a trend of body piercing (i.e., piercing of the body other than the traditional single piercing of a female's earlobes).[9] Once associated with counterculture, the popularity of body piercing is increasing within mainstream culture, especially among adolescents and young adults.[9,10] Although the prevalence of body piercing is difficult to ascertain due to its lack of permanency,[11] a recent survey found the prevalence of body piercing at one undergraduate campus to be 51%.[12]

Visible nontraditional piercings are starting to appear on both physician and nonphysician health care providers. This study assesses the attitudes of patients and their visitors regarding physicians with visible body piercings as well as the perception of patients and their visitors of the competency and trustworthiness of physicians with visible piercings. Additionally, we have surveyed faculty physicians at our institution about their opinions concerning the appropriateness of facial piercings in the health care setting.

METHODS

This was a three-phase study conducted at Vanderbilt University Medical Center, an urban university teaching hospital located in Nashville, Tennessee. The institution has residency and fellowship programs in most specialties.

The first phase of this study, the attitudes survey, looked at attitudes of emergency department (ED) patrons in regard to physicians with a visible body piercing. The second phase of this study, the competency survey, sought to examine opinions about physician competency and trustworthiness of physician models. The third phase was a survey of Vanderbilt faculty physicians about their opinions and attitudes regarding facial piercings of medical students and physicians. All surveys were approved by the Institutional Review Board.

Attitudes Survey

Attitudes of patients and their visitors were evaluated using a questionnaire designed for this study. Information gathered included demographic data, education level, and history of tattoos or piercings (Table 1). Responses on a Likert scale (strongly agree, agree, neutral, disagree, strongly disagree) to 4 statements regarding each of 3 color photographs of models

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See Editorial by Beach and Saha, p. 312.

Table 1. Demographic Data of Participants in the Attitudes and Competency Surveys

	Attitudes Survey (*N*=319)	Competency Survey (*N*=301)
Mean age, y	40.3	40.5
Gender (% female)	57.3	54.8
Employment status (% employed)	58.9	58.3
Education level (% high school or less)	48.3	46.5
Insurance coverage (% private insurance)	45.0	47.3
Patient versus visitor (% patient)	58.8	61.4
Tattoos (% with tattoo)	24.8	N/A
Piercings (% with nontraditional piercing)	15.7	N/A

with visible piercings were obtained (Table 2). The statements addressed the appropriateness of the demonstrated jewelry for physicians and medical students as well as whether it would bother them to have a physician with the demonstrated type of jewelry care for them in the ED or as their primary care provider. The first model was a female demonstrating a nostril stud; the second was a male demonstrating a piercing in the left earlobe; the third was a female demonstrating a labret, or stud, located in the skin approximately 1 cm below the midline of the lower lip.

Questionnaires were administered to consecutive patients and their visitors seen in predetermined patient exam rooms in the ED typically used for noncritical problems. Subjects were enrolled between 7:00 AM and 2:00 AM on 7 separate days during a 2-week period. Each day of the week was represented. Patients who were felt by their health care provider to be too ill for participation and non-English-speaking patrons were excluded. Patrons seen in rooms typically reserved for critically ill patients and those seen in a separate fast track area were not interviewed. Surveys were conducted by 2 students trained in survey methodology.

Competency Survey

The perceptions of patrons regarding the competency and trustworthiness of physicians with body piercings were evaluated using a separate questionnaire. Information collected included demographic data and education level. Subjects were not asked about their history of tattoos or piercings in order to decrease bias. Questionnaires were administered in the same manner as the attitudes survey during a different time period.

In this phase, subjects were aware they were to assess the physician based on appearance, but were not told which aspect of physician appearance was being investigated. Subjects were shown high-resolution 8×10 inch photographs of models with or without facial piercings. Models wore magnetic or spring-loaded jewelry rather than real piercings. An identical photo of the same model without the piercing was also made. Five models, demonstrating three types of piercings, were used in order to decrease bias that the subject might have due to the appearance or ethnicity of the model. All models were under 35 years of age. One female model was African American and one male was of South Asian heritage. Two male models wore an earring in the left ear, two female models each wore a ring in the nostril, and one female model demonstrated a labret on the lower lip. Subjects were shown a combination of 3 of the possible 10 photos in a randomized fashion. Each photo was thus seen by approximately 90 subjects (range 79–97). Combinations of photos were selected to ensure that models did not appear more than once in the combination and also to ensure that at least 1 of the 3 models seen by the subject did not have a piercing.

Likert scale responses to 4 statements regarding each of the 3 photographs of models were obtained. After each photograph was shown, participants responded to statements regarding the competency and ability to trust the physician shown as well as whether it would bother them to have the physician care for them in the ED or as their primary care provider (Table 3).

Physician Survey

Surveys were sent to all Vanderbilt University full-time medical school faculty physicians. Data collected included age, gender, and personal history of tattoos or piercings. The physicians were shown line drawings of an earring, nose hoop ring, and eyebrow hoop ring. They were asked questions regarding appropriateness of the various piercings and whether it would bother them to work with a student or physician with these types of piercings in a patient care setting (Table 4). Line drawings were used for their ease of administration.

Statistical Analysis

Data are primarily descriptive and include 95% confidence intervals (CI) for proportions when appropriate. χ^2 testing and relative risks (RR) with 95% confidence intervals were calculated. Crude relative risks are reported, along with the relative risk adjusted for age, gender, education level, and history of body modification as indicated using a stratified Mantel-Haenszel analysis. Statistical analysis was done using EpiInfo Version 6.0 (Centers for Disease Control and Prevention, Atlanta, GA) and InStat 3.05 software (GrapshPad Software, San

Table 2. Participant Responses to Attitudes Survey (*N*=319)

	Nose Stud	Male Earring	Lip Labret
I feel that it is appropriate for a *physician* to have this type of jewelry (% strongly agree/agree)	23.5 (19.0 to 28.6)	35.4 (30.2 to 41.0)	21.9 (17.5 to 26.9)
I feel that it is appropriate for a *medical student* to have this type of jewelry (% strongly agree/agree)	27.9 (23.1 to 33.2)	32.3 (27.2 to 37.8)	26.7 (21.9 to 31.8)
It would bother me to have a *physician* with this type of jewelry care for me or my family in the *emergency department* (% strongly agree/agree)	31.3 (26.3 to 36.8)	20.4 (16.1 to 25.3)	40.1 (34.7 to 45.7)
It would bother me to have a *physician* with this type of jewelry as my *primary care provider/family doctor* (% strongly agree/agree)	34.0 (28.6 to 39.3)	24.1 (19.6 to 29.2)	41.7 (36.2 to 47.3)

Table 3. Participant Responses to Competency Survey (*N*=301)

		Photograph 1 (Male, Earring	Photograph 2* (Male, Earring)	Photograph 3 (Female, Lip Labret)	Photograph 4 (Female, Nose Ring)	Photograph 5 (Female, Nose Ring)
The physician appears competent (knowledgeable, capable, and skilled) (% strongly agree/agree)	Without piercing	70.5	72.1	52.4†	68.8†	72.2
	With piercing	70.3	60.8	34.0	44.4	56.8
I would be able to trust this physician (% strongly agree/agree)	Without piercing	63.6	55.8	50.0	69.8†	63.3
	With piercing	67.4	64.9	40.4	47.8	54.3
It would bother me to have this physician care for me or my family in the emergency department (% strongly agree/agree)	Without piercing	11.2	4.7	17.9	13.6	6.3†
	With piercing	7.6	10.3	26.6	24.4	17.7
It would bother me to have this physician as my primary care provider/family doctor (strongly agree/agree)	Without piercing	13.8	10.5	19.0†	12.5†	8.9†
	With piercing	14.3	13.4	39.4	34.4	24.2

**Crude data for Photograph 2 are presented. Analysis adjusted for employment status was not statistically significant.*
†P<.05.

Diego, CA). A two-tailed *P* value of less than .05 was considered statistically significant.

RESULTS

Attitudes Survey

Of 384 ED patrons meeting the inclusion and exclusion criteria, 319 (83.1%) completed this survey (53 refused consent, 11 were not enrolled due to timing issues, and 2 were improperly completed). Demographic data are summarized in Table 1. Subject responses to statements regarding each type of piercing are shown in Table 2. Overall, 23.5% of subjects agreed or strongly agreed when asked whether it was appropriate for a physician to have a nose stud, 28.5% were neutral, and 48.0% disagreed or strongly disagreed that it was appropriate. The earring in the male model was felt to be appropriate in 35.4%, neutral in 36.7%, and 27.9% felt it was inappropriate. The lip piercing was felt to be appropriate in 21.9%, neutral in 25.7%, and inappropriate in 52.4%. Table 2 describes the percentages of patrons who felt that it would bother them to have an ED doctor or their primary care provider have one of these types of piercings.

Subjects aged 50 years and older were more likely than participants under age 50 to find all 3 shown piercings inappropriate. For example, 63.2% of those age 50 and over felt the nose stud was inappropriate, compared to 41.3% of those under 50 years (crude RR, 1.53; adjusted RR, 1.39; 95% CI, 1.08 to 1.77; *P*=.02). Nevertheless, a large percentage of subjects under age 50 also felt it was inappropriate for physicians to have visible body piercings (nose stud 41.3%, male earring 23.8%, lip labret 45.3%). Subjects with one or more body modifications (tattoo or body piercing) were less likely than other participants to find the 3 demonstrated piercings inappropriate. For example, 33.0% of subjects with a history of body modification felt the nose stud was inappropriate, compared to 54.5% of those without modification (crude RR, 0.60; adjusted RR, 0.71; 95% CI, 0.51 to 0.98; *P*=.04). Nevertheless, piercings in physicians were felt to be inappropriate by a sizable proportion of those with body modifications (nose stud 33.0%, male earring 17.5%, lip labret 39.2%). Postsecondary education was not associated with a trend of appropriateness for any of the piercings.

Competency Survey

Of 363 ED patrons meeting the inclusion and exclusion criteria, 301 (82.9%) completed the survey (51 refused consent, 9 were not enrolled due to timing issues, and 2 were improperly completed). The demographics of participants in this part of the study are similar to those of the participants in the first part of the study (Table 1). Demographic data between randomized groups were similar in respect to age, gender, patient versus visitor, marital status, employment status, education level, and insurance status with the exception that the subjects shown model 2 with a piercing were more likely to be currently employed (66.7%) than those shown model 2 without a piercing (47.7%; *P*=.01). Data for model 2 were compared with the results adjusted for employment status. Subject re-

Table 4. Physician Responses to Attitudes Survey

	Strongly Agree/ Agree (%)	Neutral (%)	Disagree/Strongly Disagree (%)
I feel that it is appropriate for a male physician/medical student to have an ear piercing	19.7	41.5	38.7
It would bother me to work with a male physician/medical student with an ear piercing in a patient care setting	24.8	33.0	42.0
I feel that it is appropriate for a physician/medical student to have a nose piercing	6.7	19.1	74.2
It would bother me to work with a physician/medical student with a nose piercing in a patient care setting	58.2	22.4	19.1
I feel that it is appropriate for a physician/medical student to have an eyebrow piercing	5.3	21.1	73.5
It would bother me to work with a physician/medical student with an eyebrow piercing in a patient care setting	58.7	21.6	19.7

sponses to the statements regarding the photographs are shown in Table 3.

The presence of an earring did not significantly affect the judgement by participants of competency or trustworthiness for either male model (models 1 and 2) with an earring, and they did not appear to be bothered by its presence. On the other hand, the lip labret (model 3) and nose rings (models 4 and 5) on the female models appeared to be associated with a negative view of competency and trustworthiness. For example, one female model (model 4) without the nose ring was felt to be competent by 68.8% of subjects, while the same model with a nose ring was felt to be competent by only 44.4% (RR, 1.55; 95% CI, 1.18 to 2.02; $P<.01$). This same model was also felt to be trustworthy by 69.8% of subjects without the piercing, compared to 47.8% with the piercing (RR, 1.46; 95% CI, 1.13 to 1.88; $P<.01$). Similarly, participants were significantly more likely to be bothered by the model physicians wearing a nose or lip piercing (Table 3). For example, 39.4% of patrons stated it would bother them to have the model with the lip labret (model 3) as their primary care provider, compared to 19.0% when shown the model without the piercing (RR, 2.07; 95% CI, 1.24 to 3.43; $P<.01$).

Physician Survey

Surveys were sent to 796 faculty physicians; 432 (54.3%) were returned. The mean age of the physicians was 45.9 years and 24.8% were female. Nine physicians (2.1%) had a tattoo and 24 (5.6%) stated they had had a nontraditional piercing at some point in their life. Table 4 contains the responses to the questionnaire. Overall, physicians felt that the various piercings were inappropriate attire. For example, 73.5% of the physicians felt that an eyebrow piercing was inappropriate attire for a student or physician, 21.1% were neutral, and only 5.3% felt it was appropriate. A large proportion of these physicians also indicated that it would bother them to work in a clinical setting with a medical student or a physician with one of these piercings: 24.8% would be bothered by a male colleague with an ear piercing, 58.2% by a colleague with a nose piercing, and 58.7% by a colleague with an eyebrow piercing.

DISCUSSION

The purpose of this study was to evaluate the perceived appropriateness and competency and trustworthiness of health care providers displaying visible, nontraditional facial piercings. We also sought to determine whether faculty physicians felt nontraditional visible piercings were appropriate attire for students/physicians. Our results indicate that a clinically significant proportion of ED patrons found these piercings inappropriate on physicians and would be bothered if their physician had such a piercing. Additionally, some types of visible body piercings on a physician may reduce patients' opinions of physician competency and trustworthiness. Considering the decreasing amount of time physicians are able to spend with patients, forms of nonverbal communication such as physician appearance may be an important consideration for the physician-patient relationship. This type of nonverbal communication might be even more important when the physician is providing episodic care or is in training.

The tension between the right to self-expression and the impact that this visible form of self-expression has on others probably has greater implications in a professional interaction like that between patient and doctor. This conflict between the individuality of the physician and their duty to put the patient at ease is longstanding and constantly changing. In 1979 Blumhagen[13] used symbol analysis, a widely used methodology in cultural anthropology, to examine the social image of the physician in America. It was noted that symbolism is common in all aspects of medicine, with the white coat the most recognizable symbol. He further describes how the development of this particular symbol helped break down the social taboos of physical contact that previously existed between the patient and the physician. The author interestingly describes instances where the patient rejects common symbols but gives little attention to physicians who decide to express their own individuality. In response to individuality, others have noted that the patient-physician relationship is "serious and purposeful, not social, casual, or random" and have used that observation to argue that physician appearance should be a symbol of this attitude.[14] These arguments ultimately do not fully answer the question of how to appropriately balance the basic conflict between the need for individuality of the physician and the expectations of the patient. This is inherently more difficult as the appearance and attire of the physician do not, at least visibly, affect the clinical care that is given.

Ultimately this problem has to be dealt with on an individual basis. On the one hand, a person unquestionably has the right to pierce his body. A physician, however, has a responsibility to decrease the anxiety and stress of the patient during the physician-patient interaction. While being a physician should not dictate all aspects of a person's life, it is important to understand how one affects the other. It is probably easier for a physician to alter his/her attire than to change the other aspects of physician manner in order to gain trust and confidence. Therefore, a physician should consider the implications when contemplating displaying a body piercing while practicing medicine.

The presence of a visible facial piercing might also negatively influence the perceived competence or judgment of a medical student or physician in training by a supervising physician. We did not, however, specifically address this issue. Many faculty physicians clearly have negative opinions about visible facial piercings and their opinions possibly could have an impact on grading, residency selection, or letters of recommendation for medical students.

Previous studies indicate that earrings in male physicians may be associated with negative patient connotations.[1,4,6] Gjerdingen et al.[1] found that an earring was the third least desirable characteristic among 25 items in their 3-point scale questionnaire. This study from 1987 did not, however, show photos of piercings, but rather included a male with an earring along with other aspects of dress and appearance such as name tag, types of clothing, presence of cologne, and hair style. Participants in a 1991 study from Edinburgh were asked to give attitudes about varying aspects of dress.[6] They found that 59% of respondents objected to a male doctor wearing jeans, 55% objected to a male with an earring, and 46% objected to a male doctor with long hair. More recently, Matsui et al.[4] conducted a survey to determine how parents of children in a pediatric clinic rated various aspects of a physician's attire and appearance. They used a 5-point scale to determine preferences of items of attire and appearance and found that a male doctor with an earring rated in the middle of the list of 16

items, with a name tag being the most appropriate item and open-toed sandals and clogs the least appropriate. None of these studies assessed perceived competency, none concentrated solely on piercing, and 2 were from outside the United States. Nevertheless, these studies, in conjunction with our findings, suggest that this type of piercing may be becoming more acceptable for physicians. We presented identical photos of two male models with and without an earring to patrons at our hospital. Competency and trustworthiness ratings were similar with and without the piercing and there were no significant differences in the proportions who would be bothered to have the models as their physician. Nevertheless, more than one quarter felt that this type of piercing was inappropriate attire, indicating that this type of jewelry has not been accepted by all of the patient population. This finding was reflected by the fact that about one quarter of the faculty felt it would bother them to work with a male student/physician with an earring.

Other types of visible facial piercings are clearly associated with negative opinions among ED patrons and physicians. About one half of patrons felt that nose studs and lip labrets were inappropriate attire for a physician. The presence of a nose ring or lip labret decreased perceived competency and trustworthiness. Patrons also were more likely to state that it would bother them to have the model as their physician when one of these piercings was present.

If body piercing becomes more mainstream and more of the population accepts the practice, more patients may perceive body piercing as appropriate for physicians. Studies published in 1987 and 1991 using questionnaire methodology showed clear objections to males with an earring, while we did not show a particularly strong level of objection.[1,6] This likely reflects greater societal acceptance of this type of piercing. In the attitudes phase of the study we noted that participants under age 50, as well as participants with body modifications, were more likely to find body piercing on physicians acceptable. It is notable that many of those under 50 years and those with body modifications still felt these were inappropriate for a physician. One study surveying adolescent patients' opinions of physician appearance found that they may prefer physicians to appear different from themselves.[2] Finally, studies have tended to show many patients prefer doctors to look traditional.[1,5–7] For example, one study used varying combinations of photographs to determine likes and dislikes among parents of patients in a pediatric emergency department. They found that formal attire, such as a white coat, tie, and dress shoes, were preferred over more casual attire such as tennis shoes and no tie.

Another important consideration is that some body modifications considered nontraditional in the United States are traditional in other cultures. While most of these cultures do not have a major presence in the United States, some are much more common. For example, nose piercings are common among South Asian women. We did not make attempts to determine whether patients felt these types of piercings were appropriate for particular cultures. Nor did we investigate the differences in how different people from different cultures, racial groups, or ethnicities perceive physicians with body piercings.

This study has several limitations. The study was administered at a single institution located in the southeastern United States. This area of the country might be more conservative than other areas. Alternatively, some areas may have stronger negative feelings toward body modification. We had a relatively large proportion of patrons with body modification, and many of these still felt piercings were inappropriate for the health care provider. This study used a convenience sample of patrons presenting to the ED. To decrease selection bias we enrolled consecutive patients presenting to a predetermined patient care area, but did not enroll patients triaged to more acute areas or those who did not speak English. It is possible that these patrons would have had different responses. We also attempted to decrease bias by representing all days of the week in our survey. We did not include patients presenting during the early hours of the morning, but this represents less than 5% of our volume. The first 2 phases of this study were also limited to ED patrons. While not representative of all patrons at our institution or the population as a whole, this population has the advantage of including patrons who are seeking acute medical care. The ED population avoids the selection of patients who have already made a choice regarding physician appearances through their selection of physicians, as they do not know who will be their physician in the ED or how their doctor will look. Our models themselves might have influenced the results. In the attitudes survey this was unlikely, as they were aware of the purpose of the study and the piercing itself was pointed out by the interviewer and was the main focus of the questioning. The appearance of the models in the competency phase was more important. Differences in age, gender, ethnicity, and appearance may affect perceived competency and trustworthiness of models. For example, one model was not felt to be competent by many subjects even without the lip labret. This finding was probably due to her youthful appearance. To help overcome these biases, we used two models with earrings (white and South Asian) and two (white and African American) with nose rings and compared models with piercings to the same models without piercings. All of the models demonstrating nose and lip piercings in the attitudes and competency studies were women. This was primarily due to our experience that most of those with nose piercings are women and we also wanted to limit the number of photos to be shown to each subject. We also did not assess all possible types of facial piercings, such as ear cartilage or tongue piercings. Another limitation is the rate of response to the physician questionnaire. Only 54.3% of physicians returned the survey. It is possible that those with the strongest opinions were more likely to return the surveys. The study instruments also have not been validated. Both affirmative and negative approaches to the questions were used and were similar. It is still possible, however, that some respondents did not fully understand the instrument.

In this study, we found that many ED patrons and faculty physicians felt that some visible facial piercings were inappropriate attire for physicians and medical students and that it would bother them to have or work with a physician or student with these types of piercings. Two types of piercings, nose rings and lip labrets, were felt to be inappropriate by about one half of the patrons and by an even higher proportion of physicians. A smaller proportion felt an earring in a male physician was inappropriate. This number is more difficult to interpret, as there is likely a proportion of the population who will have a negative feeling toward any type of nontraditional attire. Perhaps more importantly, the presence of some of the facial piercings decreased the perceived competency and knowledge

of the models. It is particularly crucial that physicians, and particularly physicians in training, understand that their appearance may affect a patient's opinion about their abilities and possibly erode confidence in them as a health care provider.

REFERENCES

1. **Gjerdingen DK, Simpson DE, Titus SL.** Patients' and physicians' attitudes regarding the physician's professional appearance. Arch Intern Med. 1987;147:1209–12.
2. **Neinstein LS, Stewart D, Gordon N.** Effect of physician dress style on patient-physician relationship. J Adolesc Health Care. 1985;6:456–9.
3. **Colt H, Solot J.** Attitudes of patients and physicians regarding dress and demeanor in the emergency department. Ann Emerg Med. 1989;18:145–51.
4. **Matsui D, Cho M, Rieder MJ.** Physicians' attire as perceived by young children and their parents: the myth of the white coat syndrome. Pediatr Emerg Care. 1998;14:198–201.
5. **Gonzalez Del Rey JA, Paul RI.** Preferences for pediatric emergency physicians' attire. Pediatr Emerg Care. 1995;11:361–4.
6. **McKinstry B, Wang J-X.** Putting on the style: what patients think of the way their doctor dresses. Br J Gen Pract. 1991;41:275–8.
7. **Taylor PG.** Does dress influence how parents first perceive house staff competence? Am J Dis Child. 1987;141:426–8.
8. **Barrett TG, Booth IW.** Sartorial eloquence: does it exist in the paediatrician-patient relationship? BMJ. 1994;309:1710–2.
9. **Stirn A.** Body piercing: medical consequences and psychological motivation. Lancet. 2003;361:1205–15.
10. **Armstrong ML.** You pierced what? Pediatr Nurs. 1996;22:236–8.
11. **Greif J, Hewitt W, Armstrong ML.** Tattooing and body piercing: body art practices among college students. Clin Nurs Res. 1999;8:368–85.
12. **Mayers LB, Judelson DA, Moriarty BW, Rundell KW.** Prevalence of body art (body piercing and tattooing) in university undergraduates and incidence of medical complications. Mayo Clin Proc. 2002;77:29–34.
13. **Blumhagen DW.** The doctor's white coat: the image of the physician in modern America. Ann Intern Med. 1979;91:111–6.
14. **Kriss JP.** Sounding board: on white coats and other matters. N Engl J Med. 1975;292:1024–5.